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ORIGINAL COMMUNICATIONS.

ARTICLE I.

REMARKS ON THE CONDITION OF THE SYSTEM, BETWEEN THE PERIOD OF OVERPOWERING STIMULATION AND REACTION.

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(Read before the Chicago Medical Society.)

MR. PRESIDENT AND GENTLEMEN OF THIS SOCIETY,—

Permit me to call your attention to that interval of time between the stage of excitement and the stage of reaction.

We all acquiesce in the proposition that the blood answers certain intentions in the animal existence; among which are:

1st. To provide material for the nutrition and maintenance of the several parts of the body:

2d. To convey oxygen to the several parts, to enable them to perform their functions, and combine with effete or refuse material.

3d. To bring from the several parts those refuse matters, and convey them to where they may be discharged from the body.

And it is also universally agreed that the blood is propelled to all parts of the body by the *agency* of nervous power operating

upon the striped and unstriped muscular tissue. So that after we have canvassed all causes of vital action, examined the functions of digestion, nutrition and assimilation, and reproduction of tissues, we necessarily fall back upon that something which all call vital force or nervous power, and locate it in the brain and nervous centres, as furnishing the agency by which these phenomena are manifested. And whether this vital power, for the performance of these and other functions, is, or resembles galvanism, electricity, or electro-magnetism, or any form of philosophic power, it is not my present purpose to inquire; or when it will be demonstrated in what nervous power or agency consists. It is sufficient for our present purpose to inquire, how is this vital power, which gives action to every organ, supplies the power for the performance of every function, produced? Or rather, what are the favorable and unfavorable circumstances for the development and perpetuation of this power, so far as they are known? For it may be borne in mind that we cannot make any very lucid claims to understand this subject, and demonstrate it as a science. Still many of the phenomena of nervous power are understood and appreciated by the profession. For instance, when, in tracing embryotic development, we say that the nervous structure is early and largely developed, and that through the periods of foetal and infantile existence this development is proportionally larger than in adult years, and when we assert that during these periods the nervous structure is more sensitive to impressions, both physiological and pathological, we only assert a truth which is well known to the profession, and one which is probable no future discovery will repudiate.

Neither should we need to be reminded that this exalted estate of the nervous sensibility can only be maintained, except by a proportionally larger supply of the blood being sent to the nervous centres. It is also conceded that the operations of the mind, mental effort, are but functions of the brain and nervous structure or tissue. Hence, mental energy and emotion, either of childhood or adult years, implies that not only the nervous power is in an exalted state, but the vascular organs supplying the nervous structure are also in a state of excited action or

excitement, proportioned to the amount of demand for that nervous power. And this exalted state of the nervous and vascular structure is to be continued until the object of the demand is attained, or the system becomes exhausted by its efforts, and relaxes into a state of inaction or repose, proportioned in length to the amount and continuance of the previous excitement, and the ability of the system to recuperate itself by restoring the lost energy of the nervous system and rebalancing the circulation. And although in philosophy it is laid down as an axiom, that action and reaction are equal, and in physiology that subsequent excitement is usually proportioned to the previous depression, neither of these propositions explain the operations of, or cover, the period to which our attention is now directed. But it is to that intervening period before alluded to, where *inanition*, proportioned to the previous excitement or demand for vital force, *takes* the place of excitement and *normal action* also, to which I wish more especially to refer, for the purpose of deciding as to its practical bearings in the everyday duties of our profession.

In our profession it is well understood, that in active inflammation, depletion and antiphlogistics proportioned to the demand are requisite; in congestion, a restoration of the normal condition of the circulatory function is the indication; and our rules for treating these cases are well defined, and acquiesced in by the profession generally. And when errors occur in treating such cases, they are usually the result of mistaking the intensity or severity of the pathological condition, or the potency of the remedies indicated, and not the indications to be answered or means to be used. But this, I apprehend, is not always the case in that period of pathological action, if it can be so called, which we have under consideration—a period of time of uncertain length, which is measured by the circumstances of the *cause*, the restorative power of the system, and the means employed for the restoration of the normal condition; and according as these may affect the case, it may be of trifling account, or important as life, with all intermediate conditions and complications. In many cases to which I allude, the symptoms may be so prominent, as to make the condition

almost self-evident; while, in others, it may be quite different by our ordinary methods of reasoning. For instance, we see this condition portrayed when some sudden intelligence or fright operates as an overpowering stimulus, and blanches the cheek of the sensitive female; and she, pale, lifeless and senseless, falls to the ground, an inanimate mass of yet living sensibilities, and all in abeyance to nature's physical laws. It is true that here the whole range of the exciting cause may have been as rapid as thought, or of duration scarcely longer than the lightning's flash; or, in other cases, the effect of that disturbed state of the electricity of the atmosphere may annihilate the nervous power of the system, by what is called the lightning's stroke; and in these cases, where the concussion has produced none but functional lesions of organs, the condition of the system is much the same as in the former supposition, only more rapid, perhaps more violently produced, and may, or may not, be more serious in its consequences.

Now what is here the pathological condition of patients in the two cases? Why, simply this, the overpowering stimulus of thought in the one case, and the stimulus of the electric fluid in the other, have suspended the functions of the brain, the nervous power, and, as a consequence, the muscular tissue of both voluntary and involuntary motion is suspended, and temporarily or permanently, according to the severity of the exciting cause, treatment, and other conditions before named.

Here we find the blood no longer pressed upon the brain with sufficient force to enable the brain to keep up its function of furnishing the nervous power, and, consequently, the muscular tissues of the heart and arteries no longer presses the blood upon the brain with sufficient force, and, as a consequence, the muscles of voluntary motion have entirely lost their contractility, and the body being left to action of physical laws, assumes a horizontal position.

What next do we see? We see also the blood leave the surface, receding from the capillaries, and falling back into the larger vessels, and why? Simply to make, by the force of gravity, that pressure upon the brain which is lost by the want of muscular contraction. And this resumption of the functions of

the brain may be induced so long as the endangium supplies the necessary vitality of the blood, to prevent coagulation in the heart and larger arteries; and when by the force of gravity the blood exercises a sufficient amount of pressure upon the brain, it proceeds to give off that vital energy which is the source of contraction, and consequently the functions of respiration and circulation are resumed. It is true that in the restoration of these cases we can assist by sprinkling the face and chest with cold water, by quick, smart blows upon the muscular and flat surfaces of the body, to rouse the dormant nervous power of the system. These last are simply stimulating to whatever there may be of nervous power in the system; while the recession of blood from the capillaries and consequent pressure of blood upon the brain *engenders* or *produces* vital action, and is *nature's* own remedy.

We have the same condition of abated nervous energy or power when the system is brought under the full therapeutic effect of tobacco, antimony, veratrum viride, colchicum, etc., etc., modified by the peculiar specific properties of the agents named, except the property of mere depressors of nervous power.

Again, a man receives a severe injury, extensive laceration, bruising of soft parts, or fractures of bones, then follows the stage of depression known as "*the shock*," which is a constitutional effect immediately following the injury; and our best modern surgeons and pathologists say that it consists in "a disturbance of the circulatory, respiratory and nervous systems," "the harmony of the great organs becomes deranged;" which is all very true; but in this description of phenomena is the true pathological condition indicated? In my opinion it is not, and therefore the true principles of treatment are not shadowed forth in the pathological description. The shock, to my mind, is simply the abated or lessened power or physical function of the brain, and the disturbed respiration and circulation are only a *consequence*, a want of motive power derived from the brain. Let us look a little farther and see what follows, and to prevent any peculiar notions of my own from warping my judgment in description, let me quote from Erickson's Surgery, one of our best and most popular modern works. He says: "On the

receipt of the injury the sufferer becomes cold, faint, and trembling; the pulse is small and fluttering; there is mental disquietude and depression; the disturbed state of the mind revealing itself in the countenance, and in the incoherence of speech and thought; the surface becomes covered with a cold sweat; there is nausea; perhaps vomiting, and a relaxed state of the sphincters. In extreme cases, the depression of power is so great as to terminate in death."

What does all of this formidable train of symptoms indicate? To me, a want of nervous power sufficient to keep up the tonicity of the system; the necessary pressure of blood upon the brain.

How much does this differ from the pathological condition before named, except in degree and modifications of pain and mental excitement, perhaps? When carefully considered, I will say, not essentially, and the differences are only the superadded conditions to the great pathologic cause, the suspended function of enervation. And these phenomena are dependent, not upon concussion, but the effect of the stimulation in suspending the functions of the brain and large nervous centres. Or let an artery be wounded, and the blood flow until the brain fails to receive the necessary pressure, and what follows? Why, simply the same symptoms, with some slight variation, but not enough to make us doubt our diagnosis in the preceding cases, but rather to confirm it. We find here the same general phenomena as in enervation following mental emotion, and nature left to herself, pursues the same restorative process. It is true, in the last named supposition, before complete restoration, the digestive function may be called upon to supply the deficiency of the vital fluid; but we must have reaction previous to this, and therefore it does not come within the limits of our investigation.

We also find the same condition of the system when we find our patient sunken, prostrate from menorrhagia, or uterine flooding from any cause. And this remark is as applicable to floodings in parturition, either premature or at term, as to any condition which could be named. And permit me to add, that when this principle of causing blood to press with sufficient force upon the brain shall be properly understood and practised by

the profession generally, we shall have disarmed the lying-in room of one-half of its terrors, as they at present occur.

Death from uterine flooding will be of very rare occurrence! Retained placentas seldom heard of! And hour-glass contractions almost a myth. The occurrence of uterine inertia lessened. And the time of parturition materially shortened! as it has been during the last twenty-five years, by a general substitution of the recumbent, or rather semi-recumbent, position for the sitting posture during labor. We will also find the tampon, as an appendage to the lying-in room, *seldom* required, and the transfusion of blood *uncalled* for!

I am aware that there is a tone or spirit in these remarks which should be exercised with caution, that one is liable to be led headlong by his own enthusiasm; but I trust I have sufficiently investigated this subject so as to speak only of legitimate deductions from properly investigated causes; and if so, I shall be pardoned by all lovers of medical science for any apparent over-zealous remarks.

In parturition, the physical exertion long continued exhausts the nervous power which supplies the muscular tissue, and it is quite often the case that labor is suspended, while the patient sleeps and rests, to restore the lost vitality; and when, in approaching this stage, the pains become shorter, and the intervals longer, the phenomena only indicate that the brain and nervous centres are not receiving that amount of pressure which is necessary for the performance of the functions of animal life and parturition added.

Long continued muscular exertion from any cause produces the same physiological result. The question may be properly asked, whether it is not the exhaustion of the muscular tissue itself, instead of the nervous power, which gives the want of contractile force to the muscles. This and many other collateral questions are too long to discuss at length in this paper; still I will say that tonic spasm, for weeks or months even, does not abate itself by contraction, nor is it abated so long as the nervous pathological condition which causes it is in existence. And that clonic spasms, when they, by the force contractions and relaxations, have depleted sufficiently the *nervous* irritability,

always end in repose. Again, the knowledge of this principle should be with us in the treatment of acute disease. For we may exhaust the nervous or vital power of the system, while local or general acute disease is unsubdued; and the same may be said of some febrile diseases.

Let me take another instance for illustration, and I will take a case whose pathology does not appear to be closely defined in our text books, or whose pathology is not generally understood alike by the profession, and it is one which will be easily appreciated if my present position is correct; I allude to *coup de soleil* or sun-stroke. Here we find this same physiological condition of the great nervous centres, and why? It is for the reason that the heat has suddenly relaxed the capillaries, and perhaps, indeed, muscular exertion is added, to exhaust nervous power; while the relaxed capillaries, by suddenly admitting blood from the larger vessels, drain the blood from the brain, so that it fails to perform its function. True *coup de soleil*, I apprehend, is always distinguishable from, and should never be confounded with, apoplexy, or congestion of the brain. It is a grievous error to mistake one for the other; yet I infer that it is quite common to regard *sun-stroke* as a *congestion* of the brain: a worse error could not be made, as it totally misdirects the treatment, if my pathological opinions are correct. Hence, I will say, let apoplexy, congestion of the brain, and *coup de soleil*, be treated according to their several pathological indications.

When the physician steps between the patient and the recuperative operations of nature, and endeavors to set up a new process which he may term restorative, there can be no matter of doubt about the value of his prescriptions. This may be best illustrated by a case which occurred in our streets only a few days since, of an Irish laborer, who was the subject of *sun-stroke* while employed in grading one of our public streets. The treatment employed by "Biddy," his wife, may be worth detailing, as illustrating the fertility of genius in prescription; and certainly it was not so far-fetched as some regular prescriptions have been. When news was brought to "Biddy" that her husband was sun-struck, she hurried to pour and carry

to him some chicken broth which she was making for his dinner, and gave the poor man some "sups" of the same. When she bethought her, that her good man always liked a smoke after eating, so she propped him in a sitting posture against the fence and hastened to bring his pipe, but her absence was too long for the drained brain of Pat, and she returned to find him dead—a martyr, perhaps, to her unskilful prescription; but neither herself nor the bystanders saw any impropriety in draining an exhausted brain of its remaining vitality, and poor Pat was buried in due time, because nature's chosen agent, position, for his recovery, was denied him, although in kindness.

But we must expect unscientific treatment in *coup de soleil* until its true pathology is understood and impressed upon the public mind; and when this is the case, we shall be content to let the body lie supine, with head pendant, and let the blood *leave* the surface as nature orders, without attempting by rubefacients and external stimulants to *keep* the blood upon the surface and away from the deep-seated vessels which make direct communication with the brain. And we shall understand that the most approved and popular remedies of our text books, as ammonia, alcohol, by the mouth or rectum, when the patient cannot swallow, can only operate to stimulate that nervous energy by indirect means which can be accomplished directly by *position*. These remedies are all well enough, but a *direct* nervous power derived from due pressure of blood upon the brain, is worth more than *all* other remedies in these cases. And nature emphatically points the way to lay the head low, give free circulation of air, *let* the blood *leave* the surface until reaction takes place; these are the first steps to reaction, and with them many a sun-struck man will, in due time, resume his avocation, when, with other treatment, he has done his last work.

And where but in this same interval of time, between the period of excitement and reaction, shall we look for the cause of death in those persons who, in times of severe epidemics, die of fear and its consequences, as has been observed in cholera, plague, yellow fever; and where shall we find the pathological indication of cure but in the course I have named, and to remove, if possible, the mental emotion which is destroying the nerve power.

Again, the army surgeon has a wide field for studying this enervation of which I am speaking; and, perhaps, at no moment during the battle does so many combatants die as at the moment that the "shout of victory rends the air," when each prostrate hero raises his head to see "*who flies*," when the blood fails to make the necessary pressure upon the brain, and he falls back a corpse, and from wounds not necessary fatal, but because they have drained him of his *blood*, and its consequences follow.

I will illustrate the practical bearings of *position* upon the period of time of which I am speaking, by giving the details, in part, of a single case which occurred in my practice; one from the class of every-day occurrences, important, because fully demonstrating the grounds of my assumption.

CASE 1. In February, 1854, I was called to see a Mrs. S., at nine o'clock a.m.; found she had a miscarriage at four p.m., the day previous, and that she had flowed profusely through the night, so that, in the judgment of her husband and two ladies of the neighborhood, she had fainted more than fifty times during the interval. My patient being at a distance of some seven miles, I was prepared to find a desperate case on arrival; and was not dissatisfied, when I was told by the nurses that she had been dead for half an hour. They were the only persons present, her husband having come for me, and did not keep up with me in my rapid drive to his house. And they further said, they were waiting for him to come and say how he would have her "*laid out*." On my expressing a doubt of her having been dead half an hour, they affirmed that it *must be* twenty minutes, and they thought half an hour, since she had breathed or shown any signs of life. I repaired immediately to the room, where the body lay upon the bed, with her arms folded across her chest and her eyelids kindly drawn down until they nearly covered the eyeball, and surely, so far as any physical signs could disclose, on a hasty examination, she was dead. My hand passed over the region of the heart, discovered no pulsations; she had bled, in a horizontal position, until all evidence of vitality had ceased—I had full reason to think from twenty minutes to half an hour; for her attendants were perfectly calm and cool, and were persons of strict integrity. Under this forbidding

aspect, I immediately decided to put in practice a principle of causing blood to *press on the brain by gravity* instead of vital power, which seemed most thoroughly absent. I immediately removed the pillow which was under her head, which let the posterior part of her head fall over the edge of her feather bed and rest upon her mattress. I then raised the foot of the bed by putting a common chair under each foot-post—which must have raised her feet above the head some eighteen or twenty inches. I then directed each female attendant to rub a lower limb, in a manner to drive the blood from the extremity toward the brain, and to rub briskly; which, after *twice* telling me that *she was dead*, and asking me if *I was crazy*, I succeeded in getting them to do, while I performed the same manipulation upon the upper extremities, alternately. After pursuing this course some two or three minutes, perhaps (for we kept no record of time, only from memory), she gasped convulsively, like one of those deep, long-drawn gasps which we see as the last gasps of life. We briskly continued the rubbing, when, in less than a minute, she gasped again; and again, and again, at shorter intervals, until probably within five or six minutes, regular, free, quiet breathing was restored. When her breathing was well established, we desisted from the frictions. After breathing quietly some ten minutes, perhaps, she opened her eyes and recognized me with a faint smile. And I asked her if she wished her lips wet, and she faintly answered, yes, and I gave her a tea-spoonful or two of cold water, in which was a small amount of tincture of camphor, I not designing to get any medicinal effect from anything but position, in order to test fully, in an extreme case, my chosen remedy, *position*.

We now kept still, and she rested in a quiet slumber—perhaps half of an hour—when she awakened, and said she had been asleep; inquired how long I had been there, and if she was worse.

In the meantime, slight color had returned to her lips, and she had pulsations of the radial arteries. As I had abundant reason thus far to be satisfied with my remedial agent, I resolved to further test its power, and rely upon position alone in the end. Then I proceeded to turn out the clots from the vagina,

when the uterus gave very good tonic contraction, making its tumor manifest above the pubes. I staid with my patient about four hours, during which time her soiled clothing was removed, and her bed made as comfortable as the pendant position of the head would allow. The uterus, in the meantime, kept up good tonic contraction, and the flooding had entirely ceased from her first assuming position, and a cloth wrung from cold water was kept cool and applied to the vulva, but was scarcely soiled by the discharge, so perfect was the contraction. Long before I left, reaction had taken place; she had learned the whole story of her illness, and expressed her gratitude for attentions. Without treatment, I think she would have had no further changes but the "*rigor mortis*," and the common changes of decomposition; and I left her, feeling that her life was as safe as patients generally, after ordinary confinement. I gave permission to lower the foot of the bed one half of its elevation that night, and the other half by successive depressions the succeeding twenty-four hours; with full directions for dietetic restoration of lost blood. I did not see her again for three weeks, when she called upon me at my place; and I then prescribed some bitter laxative and a preparation of iron, to complete the process of sanguification. She was speedily and completely restored.

I offer this single case as one covering the grounds of my remarks. It is indeed the most prominent one which has fallen under my observation; although I could quote many of less striking importance, based upon the same principles. And here let me digress to say, that I think it is a common custom in uterine floodings, with many, if not a majority of practitioners, to order their patient to lie still in bed, while blood and discomfort accumulates around them. After my previous remarks, you are prepared to hear me say, that all such cases can be moved, and even benefited, by lessening the danger by removal to easy positions and fresh beds as needed (and no precaution is needed in such cases, except to keep the head lower than the body); and often this very removal changes the aspect of the case—makes the patient comfortable, and removes the danger by checking the flooding.

I have seen cases of menorrhagia of the passive form, which, in the judgment of good practitioners, would terminate fatally in twenty-four hours, change their aspect entirely by depressing the head, or rather elevating the feet and body without change of medicine, and rapidly progress to recovery, the discharge lessening from the first hour of *position*.

Since I have known something of the value of position, I prize the general stimulants as of less value than formerly, in my practice; not that I would discard their use, but that I have less frequently needed them. Opiates, and many of the remedies used in floodings and hemorrhages, operate by giving a stimulated nervous energy, which is only a substitute for the inherent but depressed power of the system. The administration of vascular stimulants serve to press temporally the blood towards the vascular extremities, and in this peripheral determination the capillaries of the brain share largely, because not compressed by atmospheric pressure. This result is obtained by the stimulus causing the muscular tissue of the heart and arteries to contract upon the blood. Nervous stimulants, as camphor and ammonia, operate to rouse temporally the force of nervous energy, and in many cases either the vascular or nervous stimulants may be sufficient to press the blood upon the brain, so that it will give back its normal function. We sprinkle the face, the chest, the extremities with cold water, in cases of fainting and suddenly depressed vitality, to rouse by *reflex action* the normal condition.

We cool the surface to drive the blood to the deep-seated vessels, because they are in direct communication with, and press upon, the brain. And here, perhaps, is a formidable error in medical practice frequently; the question should be solved by the practitioner, whether the cool surface is not an effort of nature to restore vitality, or is it really a pathological condition to be counteracted by the physician? No one can hesitate a moment as to the importance of making the diagnosis, so long as it would dictate opposite modes and modifications of indication.

And again, let me say that we shall never have occasion to bring to our aid *reflex*, when we can employ *direct* power to

produce the desired result—which I trust I have sufficiently shown—is always within our reach, and will accomplish more than any reflex action can accomplish; ready for any emergency; and is just so far preferable as any natural condition is preferable to an artificial one, however speciously devised.

In these brief remarks, I have aimed to speak only of general principles as they occur in practice, and tend to illustrate the *one point*. In many cases, a disjointed remark is all I have said upon a point, which, for full illustration, would have taken pages, well knowing that your professional knowledge would supply such apparent deficiency.

I may be asked why a certain amount of sanguinous pressure is *necessary* to enable the brain and nervous centres to perform their functions; I answer, it is sufficient if we note the fact *to be so*. Neither can we tell why healthy granulations only grow when covered with pus; or why pond lilies only grow when their roots lie deeply under the surface of the water; or why water itself congeals at 32° , or boils at 212° . One answer is sufficient for all; they are so, because they were made to be so.

CHICAGO, ILL., August 6th, 1858.

ARTICLE II.

ADDRESS, INTRODUCTORY TO THE SIXTEENTH ANNUAL COURSE
OF LECTURES IN RUSH MEDICAL COLLEGE:

DELIVERED NOVEMBER 1, 1858.

BY J. W. FREER, M. D.

GENTLEMEN OF THE MEDICAL CLASS:—The labors of the sixteenth session are at hand. By the kind courtesy of my colleagues, it becomes my agreeable duty to welcome you to the halls of Rush Medical College.

I see before me those whose faces are familiar, from former associations in this institution, and whose return indicates their satisfaction with our labors in the past.

With others an acquaintance is yet unformed; but your presence to-night, gentlemen, is our best assurance of your devotion

to the honorable profession of medicine, and of your desire to fit yourselves for honorable positions in its practice.

Permit me then, in behalf of the Faculty, to extend to you the hand of fraternal regard, and welcome you to the labors and the rewards of the session.

We desire to greet you as diligent students, thirsting for that knowledge of the profession of your adoption, which is indispensable to success, and shall spare no efforts on our part to render our instructions lucid and practical, and, so far as the brief time will permit, prepare you for future usefulness.

Common pursuit induces common sympathy; and, in proportion as the powers of the human mind are taxed in the attainment of a great object, so are minds thus laboring more closely drawn together by common sentiment, till those who may have met as strangers part with reluctance; and if your industry shall realize our hopes, we shall rejoice at your advancement, but sorrow at your parting.

In making the profession of medicine your choice, we sincerely hope you have not underrated the labor incident to success.

It has no offers of inglorious ease with which to lure its votaries. It does, indeed, strew beautiful flowers in the pathway of its followers, but spreads no wayside couch for idle dreamers.

Its pathway is not over level plains that one may tread with ease, but rugged Alps are in its course, and he who highest climbs, may still behold a broad expanse where student's footprint never yet was seen.

But though the goal seems hidden in the clouds, the rewards of labor lie all along the pathway; and, as new truths in medicine are unfolded to your view, your severest labor will become at last your greatest pleasure.

The true mission of medicine is only appreciated by the reflecting mind. It has to do, not with the earthly treasures of man, but stands as the handmaid of nature, to strengthen the ever-failing tie which binds his mortal to his immortal being.

With it are the issues of life and death, and tributary to its use, are all of the important sciences.

■ If life be dear, or health valuable, then must we cherish that science which shall secure the one and preserve the other.

■ The beauty of the human system is only equaled by its perfection. It came from the hands of its Creator, the climax of his works! but, from the time the mandate was issued, "to dust shall thou return," disease has ever lingered near, ready to accomplish that decree, if any point be left unguarded.

■ How then shall we, as the conservators of health, be able to guard this human citadel without a knowledge of the structure and strength of the fabric; its portals and its avenues—its chemical laboratories—its myriad of work-houses, where repairs are ever going on; its telegraphic structures, communicating with all parts, and conveying signals with the swiftness and precision of lightning; and even its conduits and its cesspools, through which it is relieved of worn-out and useless matter.

■ This complicated structure, it is the province of scientific medicine to protect; and in order to succeed, we must trust, not alone to armory, but must know well our battle-ground. In a word, gentlemen, know all that may be known of the anatomy of the human *system*.

■ A thorough knowledge of the structures of the body, and their functions in *health*, can alone fit you to recognize those departures which constitute disease.

■ This instruction it is the united province of anatomy and physiology to *impart*.

■ Nor is the science of pathology less important. It traces morbid results back to their essential cause. With what unerring precision does it point to the rapid pulse; the parched tongue; the burning skin; the hurried breath; the anxious eye; the stifled groan; and interpret the signals of distress which tell of the fearful conflict waged within. It hears alike the *thrill*, the *murmur*, and the *rale*, and notes their tale of woe. It stands our great interpreter of the signs, symptoms and results, which constitute the *language of disease*. Cost what it may of time or trouble—that language you must understand.

■ But mark the *lesion*; note its accurate pathology.

■ Still your labors end not here. Remedial agents, your

weapons for this warfare, are yet to be *discovered*, and the method of their administration made known. No single locality can supply these varied wants. They may lie in profusion upon the surface, or deep in the bosom of the earth. With one hand you may cull them from the herbage of the pathside, with the other be compelled to gather them from the distant sea-girt isle.

They rise from their resting places *not* with the label of their virtues impressed upon them! These they discover only to the careful analyst and faithful experimenter.

The chemist's eye has never yet discovered the confines of this vast field. Yet the single department of *Materia Medica* claims this whole domain.

When you shall be able to tell the names and relations of each artery, vein and nerve—each bone and muscle—each organ, with its functions, its characteristic appearances in health, the changes induced by disease—the virtues of the plants upon the thousand hills—the properties of the minerals and the metals—the incompatibles in medicine—the wonderful story of minute structure which the microscope reveals—and the modifying influences of age, sex, temperament, climate and hereditary disease upon the human system; *then*, only, would you be able to answer with appropriate emphasis whether in all your labors you had found repose.

How boundless are these fields of study! Your tears will never flow for unconquered realms. There are no weeping Alexanders in the medical domain.

Should you devote the energies of your lives to chemistry alone, I doubt not Barón Liebig might still be your instructor. Should botany beguile your hours, still I fancy some Pereira might lead you all your lives.

That renowned surgeon, who hardly failed to prosecute dissections a single day for forty years, still expressed that he had much to learn. If I point you to the surgeons of renown in this or other lands, they are all, without exception, enthusiasts in their departments. Nothing but severe and long-continued labor in their particular field has rendered any of our *worthies* pre-eminent. That man has never lived who stood prominent

in all departments. It can only be your aim to equal *one*—not all of these—if your ambition leads you to seek for fame in unexplored fields.

If your studies had only reference to *yourselves*, we would advise you to glance at the more prominent and important *truths* in medicine; thence turn your energies to that department most in harmony with your tastes, and there seek your preferment in original investigations.

But we cannot so regard those who listen to us to-night.

The preservation of health, and the cure of disease, according to the prescribed rules of practice, for the most part, are the objects of your future anticipations.

We remember that but a few months at most intervene between this pleasant interview and the hour when the weighty responsibilities of your mission will rest heavily on you—when the writhing victim of disease shall turn to you the imploring cry for help—when each word and look of yours shall wing its way with joy or sorrow to the hearts of stricken friends.

And, when you stand thus single-handed in the conflict of life and death, it will avail much that you are well informed in all of the auxiliary sciences of medicine.

Yet, if the labors of a life could be devoted to each of these departments, and their united results were at your command, you would be only the better prepared to accomplish your desire.

We perceive that, in assuming the duties of practitioners of medicine, we are not realizing the earthly heaven of indolence.

He who shuns the labor incident to success in agriculture, or the various trades, thinking to become a competent physician, and yet gratify lazy habits, never committed a more egregious blunder; and the sooner he discovers his mistake the better for himself and mankind.

We trust that the teachings of this institution, in all its past history, will deter any such from entering here.

We are proud to number among the alumni of Rush Medical College those who are foremost to sustain and advance the interests of scientific medicine; and are unwilling to believe the

present class less anxious to do honor to themselves and their prospective "alma mater" than their predecessors.

Gentlemen,—although we have dwelt thus long on the difficulties and obstacles besetting the path of the medical student, yet it has not been our purpose to discourage you from entering this great and noble field; nor do we deem it necessary to warn you against indolence, but rather seek to introduce the obstacles in your way, and, as they are comprehended, you will be the better prepared to appreciate advice which, if faithfully followed, will lead to ultimate success.

The great question which most concerns the medical student is this: how to select from the great mass of medical lore those portions which will soonest fit him for usefulness; and it is one of the special duties of the institution to guide and direct the student in the attainment of this important object. But we cannot expect in the brief time allotted us, to render you profoundly versed in any one of the departments of scientific medicine. We cannot expect more than to be able to present to your notice the indispensable portions, thereby enabling you during the period of pupillage to attain sufficient practical knowledge to pursue the healing art in the ordinary acceptance.

We hope there are those among you who aspire to something more than the title of "ordinary" practitioners of medicine; but experience teaches us that about nine-tenths of the graduates from the various medical schools come to this at last. We do not wish to be understood as underrating this nine-tenths, for they go to constitute the most useful class of persons in the world. To borrow a phrase from a distinguished southern politician, they are the very "mud sills" of medical society, if not of medical science.

We hope there are embryo Sir Astley Coopers among us, and perhaps there are; but it will require a longer period of gestation than is natural to this or any similar institution, to bring the promising "chick" to full development.

Great men are not furnished to order by colleges; but those institutions may show the way to preferment. In other words, the medical student may look upon his college days as a period

of incubation, with this difference, that it depends very much on himself whether he turns out addle or not.

Again, let me assure you that the time allowed for the acquirement of that which is indispensable in ordinary practice is barely sufficient for your necessities, and will bear no diminution for bestowment on extraneous objects.

A thorough knowledge of our mother tongue is indispensable to the medical student. Indeed, no person should be admitted to membership with a medical class without this necessary qualification; and if there are those among you who have it not, we would advise you to retire until this needful task is accomplished, otherwise you must eventually submit to more humiliating positions than "mud sills," even that of poor relations of that very substantial class.

It is of great advantage to have a knowledge of all the modern languages, especially the German and French, for we get the spirit and meaning of an author more readily when expressed in his native tongue; and indeed, foreigners are becoming so numerous with us, that it has become almost a necessity that the medical practitioner should be capable of conversing in various languages. But if you have not already gained these needful accomplishments, it will have to be deferred until a more convenient time.

The means, then, which shall render you good physicians and competent surgeons must engage your chief attention during the period of pupilage.

To amateur students, and experts, must we look in the main for extended investigations in the several sciences allied to medicine, and in their departments we must regard them as benefactors. But these extended investigations can never be accomplished by the general practitioner; his limited time absolutely forbids it. He must be content in the main to seize upon and turn to good account the researches of others.

The teachings of some of the medical schools, I think, have been erroneous in this respect; and perhaps we are not without blame. It is too often forgotten that the medical student is soon to become the medical practitioner, and his mind is lum-

bered too much with the technical legerdemain of test tubes and microscopes.

"It should be constantly borne in mind that, when you come to treat disease, you approach the bedside as physicians and surgeons, and not merely as chemists, anatomists or botanists. Such is the character in which you are to appear, and the acquisition of knowledge which will prepare you for the discharge of its duties, ought to engage your chief attention."

The collateral branches of medicine must themselves be advanced, and their connection with the latter in its aspect as an art gradually evolved. But it is rather the chemist that will extend chemistry; the naturalist botany; and the comparative anatomist will effect what is necessary for his own department. These things cannot be done by the ordinary practitioner of medicine, and he must, as the rule, be contented to leave to the few greater intellects of the time even the duty of developing the relations borne by each progressive step made in the above departments of knowledge to the principles and utilities of his own profession.

That there is now a fashion leading to opposite doctrines than these, we are fully aware. We see it operating far too frequently, both upon student and upon teacher. With the schools there is much tendency to progress—much improvement in many points, yet how much error! Too often one would think it is quite forgotten that the medical student is soon to become the medical practitioner.

In anatomy, practical and human, we hear of more than half the session being consumed with "homologies" and developing mental and transcendental anatomy of the bones, being so learnedly and fully accompanied by comparative illustrations, that three months barely suffice for their consideration, though ample enough to cause the vessels and nerves to be neglected.

In physiology, we have learned disquisitions upon "caudate cells," epithelial scales and basement membrane, absorbing the time that should be spent in the more critical examination of the functions of the different organs.

It is well to know of nuclei and nucleoli, and to understand the cell theory; but it seems more important, if you must neglect

one or the other, that you should know the course of and parts contiguous to a large artery.

Nor are the teachings of chemistry, as too often pursued in the schools, without fault in this respect. The minutiae and subtleties of organic analysis, the formulas and the symbols of theoretic combinations, are all very well for the accomplished chemist; but there is more of utility to the practitioner in understanding the principles of ventilation, the injurious effects of organic decomposition, the action of lead upon water, of copper on food, or the effect of adulteration of articles of daily consumption, by the sick and well.

In a word, gentlemen, I hold to practical utility in medical teaching, and let scientific disquisitions take care of themselves. I believe that instead of theorizing too much, you had better be engaged in educating your eyes, your ears, and your touch, that you might become competent to distinguish, with your own eyes, the difference between scarlatina and measles. Your own ear should distinguish between mucous and crepitant rales; your own touch, the peculiar differences of the pulse in enteric inflammation and exhausting hemorrhage.

The bedside of the patient is the stand point where you may apply the teachings of the lecture room. It is there you may learn the obstructed respiration of pneumonia—the prostration of peritonitis—the laryngial breathing of croup—the symptoms of cardiac derangement in rheumatism—the symptoms of internal hemorrhage—the vomiting of constricted hernia—the hiccough of gangrene—and the collapse of intestinal perforation.

Hence the necessity of hospital instruction in connection with and illustration of daily lectures. In the lectures you hear the statement of facts; in the clinical instruction you behold them verified.

Nor are you to suppose that our largest institutions afford the greatest facilities for hospital instruction. Indeed the reverse is true where ample hospital advantages are furnished; for the larger the class, the more must clinical instruction be addressed to the mass, and less to individuals. Often the number in attendance is so great, that the mass of observers

are so far removed from the patient that a critical examination is impossible, and deliberate inspection out of the question.

With the hospital advantages connected with this school, we are confident, you will find our facilities for benefiting you in that respect far more practical than though your number was twice as great.

We come now to answer the question, How shall you proceed in order to gain the requisite knowledge for the practice of our profession in the brief time allotted for its acquisition?

In the first place, give diligent heed to the instruction of those who, in a brief course, may impart to you the result of years of experience and labor in their departments; at the same time, I warn you against being blind recipients of whatever may be offered by your instructors without canvassing its merits. At this early period you should commence reasoning for yourselves; take no man's word as to the truth of a dogma or hypothesis, before submitting it to your own mental crucible.

The blind follower of others' doctrines in medical science is merely a receptacle of all the truths and errors that may chance to come in his way. Minds thus constituted are not fit for the high calling of physicians, but should assume the menial offices for which by nature they are adapted, and in which, by following the dictum of more gifted independent minds, they may become really useful.

In the second place, learn to be close and careful observers at the bedside, in the hospitals, until you are able with your own five senses to distinguish between the different diseases presented for your inspection. I tell you, gentlemen, there is nothing of greater advantage to a young man in practice, than to be able at a glance to tell the "old ladies what the matter is." Indeed, once I knew of a poor doctor who was ruined for want of this qualification; for he mistook a case of parturition for that of bilious fever, and proceeding to put up his powders, told the officiating *beldame* that he had a man just in that fix the day before, and *cured* him at once.

Again, in regard to first course students, I would recommend that you bend your minds principally to the fundamental sciences, embracing anatomy, physiology, chemistry and *materia medica*

—especially anatomy, the basis and foundation of the whole superstructure of scientific medicine. Without it, you might as well undertake to master a language without the alphabet. To it, the heroes of our profession owe their preferment.

It follows, then, that the anatomy of the human system, with the functions of the different organs, should engage the chief attention of the junior members of the class. Then you will be prepared, during your second course, to comprehend the teachings and doctrines of medical and surgical practice. And let the few months spent here in study be so improved that in after life you may recall the time with pleasurable remembrances of profit and enjoyment.

Shun, as associates, those who fail to appreciate their advantages; for although they may seem careless and happy, yet the time will surely come when they will regret, in sackcloth and ashes, the misspent time of their college life.

Carefully avoid those temptations and excesses which have ruined the hopes and expectations of so many of our young men.

Remember that you have assumed a position where the world has a claim on you for your best services. It may rightfully demand of you a well disciplined mind, a body unimpaired by excesses, and a heart pure and philanthropic. Seek those attainments which will render you the desirable companions of the leading minds which stand as lights in the profession, and which will render you ministering angels to those who turn in deepest sorrow, and commend to your skill the wellbeing of dearest friends. Above all, fit yourselves so as to be able to practice our profession with an approving conscience; with that self-reliance and manliness that conscious ability can alone impart; and that in your declining years you may repose on the grateful remembrance that those who have committed the greatest treasures to your care, have not been the "victims of misplaced confidence."

For the education of such men this institution was projected, and to the honor and credit of its founder, it has not as yet materially failed in its object.

ARTICLE III.

BILIOUS FEVER WITH TORPOR OF BRAIN.

BY W. R. STONE, OF MANHATTAN, AND R. B. DEWEY, OF PLEASANT GARDEN, IND.

CASE 1.—J. H., aged 50 years, of bilious temperament, a farmer of industrious habits, was afflicted during the summer of 1855 with intermittent fever, which was, from time to time, relieved by *sul. quinia*, up to Sept. of the same year, when the disease assumed a different and somewhat singular character, he being disposed to sleep each day at the time his paroxysms of fever had formerly manifested themselves. Each day this disposition increased, but was lightly regarded by himself, against the warnings of his physician, W. R. Stone, for one week, when his wife called on the Dr. in the morning, stating that her husband could not be awakened, and requested the Dr. to visit, upon doing which, he was found as follows: pulse 80, small and compressible; skin cool and dry; respiration slow and rather laboring; head of equal temperature with the body. He was, at this time, in a profound slumber, out of which it was impossible to arouse him till the aid of a sinapism to the nuchial region was obtained, when he was sufficiently aroused to take medicine.

R. *Sul. quin.*, grs. 100, divided into twelve powders, one of which to be taken every two hours till he is more wakeful, when the doses may be halved, and time lengthened to three hours. Some 60 grs. were taken before this effect was induced, when small portions of proof spirit was alternated with the quinia.

The subsequent treatment, to perfect recovery, consisted in tonic doses of quinia and sesqui-carb. of iron, by which the patient was entirely restored in three weeks.

Removing to a distant part of the country, in about one year he was again attacked just as before, when a medical attendant was procured, who waged a merciless warfare against quinine as an agent impotent to good offices, but fruitful in evil deeds, when, as a matter of course, its use was dispensed with in the case. The patient slept near one week, and then died for want of quinine.

CASE 2.—T. K. S., aged 50 years, of nervous temperament, a farmer, and of industrious habits, complained for some days of pain, and tenderness in right hypochondrium, with uneasiness of the stomach, bowels constipated.

On the morning of June 20th, 1857, R. B. Dewey was called to see him, the report being, that on arising at day-light he became blind, dizzy, deaf, and lost his speech.

Repairing to his house he was found as follows: pulse 40, small and compressible; surface cold, and of an icteroid hue; pupils contracted; no preternatural heat of head; voice weak, and employed with much difficulty as though a heavy weight were pressing the chest. The lingual muscles were partially paralyzed, causing pronunciation to be imperfectly performed.

Viewing the case as one of miasmatic origin, in which the weight of the attack had fallen on the nervous system, which was deemed free of organic lesion, he was put upon the following:

R. Sul. quin.,	grs. 50.
Pulv. capsic.,	" 10.

Mix, and divide into six powders, one to be taken every two hours. Six grs. of sub. mur. hydr. was given with first powder. Frictions, with stimulating pediluvia to the extremities, together with a sinapism to the nuchial region were employed. Under this treatment the patient soon regained his health.

CASE 3.—We visited this patient together on the 22d of May, 1858, and found him rather plethoric, of bilious temperament, a farmer, and 27 years of age. Condition: pulse 130, and moderately compressible; tongue slightly pale and flabby; skin somewhat yellow and moist; pupils dilated and intolerant of light; severe pain in the head; bowels constipated; nausea, and vomiting of bile. No preternatural heat of head.

Previous History.—Six months back the patient became afflicted with periodical neuralgia in the form of hemicrania, which had been temporarily relieved from time to time, till within one month of the present attack, when he was taken severely with what seemed to be neuralgia of head and face, together with great functional derangement of the stomach. He was promptly relieved with vegetable and mineral tonics,

together with anodynes, and was requested to continue a tonic course for some time, which being neglected, the present attack supervened.

Diagnosis.—Remittent fever, with excitation of the nervous centres, of a debilitated character, in which we judged it imprudent to use depletives to much extent.

R Sub. mur. hydr., grs. 12.
Podophylin, " 18.

Mix, and divided into six powders, one to be taken once in three hours till bowels move, after which the following:

R Sul. quin., grs. 35.
Capsic. pulv., " 8.
Ferri. Prussias, " 30.

Mix, and divide into six powders, one of which every two hours.

Free catharsis was induced by second purgative powder, when, as anticipated, the pulse admitted of the use of the tonics, but the stomach still remaining irritable, it was rejected.

May 23d.—Feels better, from report of condition, but thinks another paroxysm of cephalalgia coming up. Sent him sul. morph. one grain, in four powders, one to be taken every four hours till quiet is produced.

May 24th.—Visited patient this morning, and found him in all respects much better. Left 40 grs. of quinine in acid solution, one-sixth to be taken every two hours. Also advised the steady use of quin. and iron for some weeks.

The patient is, at this date, May 30th, convalescing finely.

We had thought of offering some remarks upon this peculiar class of cases, but the length of our article admonishes us to close. We will, however, request the opinions of any of your readers in relation to those cases, which, so far as we know, are not mentioned in our practical works.

ARTICLE IV.

IPECACUANHA IN DELIRIUM TREMENS.

(READ BEFORE CHICAGO MEDICAL SOCIETY.)

BY GERHARD PAOLI, M.D., PHYSICIAN TO THE BRIDEWELL CITY PRISON.

Few outside Bridewell have any idea how many of these cases almost daily arrive in a most miserable condition.

Last year I had under my treatment one hundred and sixty cases suffering with this disease, eight of which proved fatal. This year I have had up to date one hundred cases, out of whom four died. Historia morbi of many special cases might be given, but I will here limit myself to the treatment only.

Many, when they arrive, come from the most filthy and unhealthy places in the city, where they may have been lying for several days before coming to the notice of the police; half starved and dirty, covered with vermin, and many with preternaturally red noses. This will give you an idea in what situations these patients are on arriving at the famous Bridewell.

They have all for many days and weeks been constantly drinking alcohol under the name of Irish, Scotch and Bourbon, all full of poison. I know, as a fact, that this whisky contains a large quantity of fusel oil, which is a well known poison. When liquor dealers mix the above named liquors, they take large quantities of the above poison; and even brandy which is manufactured in this country is mixed with a poisoned substance which they call oil of cagmars, which is equal to Prussic acid in its effects. Knowing these facts, I wonder there are not more fatal cases.

Sleep being the suspended function, and the one nature and the system demand, we use opium to produce it, but although this medicine sometimes produces the desired effects, in many special cases it is often dangerous. Chloroform I have tried in several cases, administering it internally, as well in large as small doses, also by inhalations, with due caution; but in my experience I have not found it at all answer my expectations.

Ipecacuanha which I have tried in sixty cases, I have found most remarkably successful in the above mentioned disease;

quieting the nervous system, exciting the appetite, acting on the secretions, and uniformly producing sleep. When a case is not of too long standing, I give it as an emetic the first dose, and afterwards give from fifteen to eighteen grains every other hour. Connected with this remedy, I use shower baths, and let the patient frequently drink strong beef tea, without any alcoholic stimulants.

With these facts then before us, and the experience of the happy effects of ipecacuanha, I can conscientiously recommend it to all medical practitioners.

ABSTRACT OF PROCEEDINGS OF THE AURORA CITY MEDICAL ASSOCIATION.

Monday Evening, Aug. 2nd, 1858.

The Association met at Dr. Allaire's office.

Present.—The President, Dr. P. A. Allaire, in the chair; Drs. Winslow, Hard, Gillett and Young.

Minutes of the last meeting read and approved.

Dr. Hard reported the following case of "*Uterine Abscess opening into the Rectum:*"

May 30th, 1858.—I was called in haste to see Mrs. E., a married lady, aged twenty, of good constitution, and the mother of two healthy children. A few months previous to this time, she aborted, having been pregnant about two and a half months, from which she recovered without anything occurring worth recording. She again became pregnant, and had arrived at about the same stage of utero-gestation; and while engaged in cleaning house (washing windows), she was taken with labor pains and hemorrhage so severe that she could not leave the room, or even get upon a bed, but sank down upon the floor and called for help. In a few minutes the foetus and placenta were expelled entire. Some women who came in, laid her on the bed and sent for me. I arrived about half an hour after the expulsion of the foetus and placenta. Her lips were pale and almost bloodless, she had vomited freely. Skin cold and clammy. Pulse scarcely perceptible at the wrist, and she was

so nearly comatose and insensible that it was with much difficulty she could be aroused to consciousness. I immediately applied my left hand to the abdomen, and with my right made examination per vaginum. I found the hemorrhage very profuse and the aorta pulsating rapidly; I compressed the aorta with the left hand to control the hemorrhage if possible until other means could be resorted to, and also applied cloths wet in cold water over the uterine region and introduced others into the vagina (there being no ice at hand), and ordered attendants to administer pulv. ergot., tinct. capsicum and carb. ammonia, which were freely given. In this critical state I did not stop to measure doses very precisely. We also applied warm bricks and sinapisms to the extremities. The hemorrhage was soon arrested, and she gradually aroused from the stupor. From the great loss of blood and the impression made upon the nervous system she did not soon recover. The pulse became frequent and small, with considerable febrile excitement. I continued to visit her till June 19, she then being able to sit up for an hour at a time. After this she continued to improve so that she rode out and also walked to the neighbors, some forty rods distance.

July 1st.—I was summoned in the night to see her again. I found her in great pain. The abdomen distended, tympanitic, and so sensitive to the touch that she could not bear the weight of the bedclothes. The greatest tenderness was found in the iliac and hypogastric regions. The expression of the countenance was anxious. Pulse small and 135 beats to the minute. Bowels had not moved for two or three days. I learned that two days before this she had visited a sick neighbor, and had also remained a few hours in a room while being whitewashed. My diagnosis was metritic peritonitis.

Having been greatly reduced by hemorrhage a few weeks before, I did not resort to venesection. I gave her a cathartic of calomel, to be followed by sulph. magnesia. Trusted to "*tinct. veratrum viride*" to control the pulse, used opium to allay pain and nervous irritability, and applied fomentations to the abdomen. After a movement of the bowels was obtained, to secure which we had to resort to enemata, I gave calomel in small doses, and followed the course usually recommended

by standard authors, with the addition of the tinct. verat. viride, which controled the action of the heart most admirably, and to which I would particularly call the attention of this society.

The peritonitis gradually subsided. After about two weeks, by examinations per vaginum and rectum, I became satisfied there must be an abscess forming in the posterior part of the uterus. The os uteri appeared natural, except being nearer the pubis, and no part that could be reached by the finger appeared tender but that posterior to the os uteri, which point, the moment it was touched by the finger, gave great pain. The same occurred when the examination was made by the rectum. Pressure of the hand upon the bowels above the pubis produced pain in the pelvis, which extended to the iliac regions, more severe in the left than the right. Every evacuation of the bowels gave excruciating pain so severe that the thought that she must soon have a movement of the bowels, would throw her into a profuse perspiration, and so agitate her, that an anodyne was required to restore quiet. The treatment consisted of counter-irritants, anodynes and alteratives, and in the later stage, tonics and nutritious diet, to sustain the rapidly failing powers.

July 19th.—I was summoned and found my patient greatly prostrated. Pulse small and feeble. The abscess had just discharged into the rectum, and she had passed about half a pint of well formed pus. I immediately gave wine and tonics. The discharge of pus continued for a week, when it ceased, and she has improved ever since. This is a brief account of the case, with the treatment. All the minutiae I have not thought best to report; for I have presented this case not so much on account of what has occurred (although I do not recollect of ever hearing or reading of a case of uterine abscess which discharged into the rectum), as to propose a question for the consideration of this society which seems to me to be of the greatest importance. What would be the result should she again become pregnant? Adhesions must have formed between the uterus and the rectum. Could the uterus rise from the pelvis as gestation advanced? Would another abortion take place, or would it be likely to compromise the life of the mother?

Dr. Winslow thought that it would be likely to compromise the life of the mother if she should again become pregnant, as he thought that it would be impossible for the uterus to rise from the pelvis if there were adhesions between it and the rectum.

Dr. Gillett was of opinion that if there were adhesions formed to any great extent, successful parturition could hardly be anticipated.

Dr. Allaire thought that she would be very likely to abort again if she should become pregnant very soon—he thought that she ought to be advised accordingly.

Dr. Hard thought it very likely to compromise the life of the woman, should she become pregnant again, and said he should advise her and her husband of the probable consequences of another pregnancy.

Dr. Young thought *that if there really was adhesion* between the rectum and uterus, abortion would be more likely to take place at an early stage of pregnancy than before the adhesions.

Dr. Winslow reported a case of monstrosity.

He was called a few weeks since to visit a patient in labor with her first child. The labor was natural but rather slow, and when the child was born it was found to have a tumor five or six inches long, and (I think) about two to four in circumference, and covered with hair for about half its extent. The tumor was smallest at its attachment to the scalp. The bones of the head were not very well developed. Dr. Allaire was called and removed the tumor. The wound healed kindly and the child done well. The monstrosity seemed to be the result of excessive development.

The mother thought that it was caused by a fright. Some time during the first months of her pregnancy, her husband, who had just killed a hog, came into the house, and unbeknown to her slipped a kidney down her back inside her clothing, which frightened her very much. She attributes the monstrosity to the kidney. The tumor, however, did not resemble a kidney in form or appearance.

On motion the association adjourned to meet at Dr. Allaire's office, on the first Monday evening in September.

D. W. YOUNG, M.D., *Secretary.*

(Continued from page 532).

as having occurred in the spring of 1856, was among those subjected to an antiphlogistic treatment, in which part antimony entered largely.

"Rheumatism is frequently met with, especially in the winter and spring months. It is introduced here simply to call your attention to Laennec's treatment of the acute and sub-acute varieties, by sedative doses of tartarized antimony. Although it is almost a specific treatment, it seems to be generally ignored by the profession. The antimony may be given as usually recommended in sthenic pneumonia, but I commonly administer it in doses of one grain every four hours. This dose is nearly always tolerated, nausea or vomiting at first, being the exception, not the rule. After a decided sedative impression is induced, the remedy must be discontinued a day, and then resumed at longer intervals. It will be necessary to guard the bowels with laudanum, if they are too freely acted on by the antimony. Bleeding may be dispensed with under this treatment. One who has never used the remedy in this way, will often be surprised to see how soon a patient with acute rheumatism will pass from a state of intense suffering to almost perfect ease, and the swelling and soreness rapidly disappearing, and the dry, parched and coated tongue becoming moist and clean.

"Neuralgia has become one of our most common diseases. It is seated most frequently in the head and face, but is often found in other parts of the body. It is usually intermittent, but sometimes remittent in character, and accompanied with slight febrile symptoms during the paroxysm. After the operation of a mercurial cathartic, twenty grains *sul. quin.* with twenty-five to thirty of *carb. ferri*, given in the intermissions, seldom fails to arrest the paroxysm promptly. In the remittent cases, these remedies have to be persevered in for a few days. Relapses are common, but they yield more readily than primary attacks. I have discarded local applications, but anodynes are sometimes necessary, also general bloodletting. Perhaps the only interesting feature in reference to this disease is its astonishing increase. Ten years ago it was rarely met with; now it is encountered almost weekly. I am sometimes asked whether it is not a new disease—something unheard of until recently."

Your chairman would beg leave to add some observations of a topographical character, in reference to that region of our State lying in the valley of the Des Plaines river, of which Joliet is the centre.

Having its source in Wisconsin, the Des Plaines runs within a few miles of the Chicago river, and flows on in a S. W. direction, until uniting with the Kankakee, about fifteen miles below Joliet, they form the Illinois river.

The valley of the Des Plaines as it passes through Will County, varies in width, being in some places quite an expanse of marshy prairie, and in other having only a narrow passage between the bluff on each side.

The stream is mostly rapid, and in some places easily forded in low water, having either a gravelly or rocky bottom. On the west side, for the most part of the way, there is a bluff of limestone rock; but on the east, the elevation of the land, before reaching the ordinary prairie level, is more gradual.

At an early day, the inhabitants suffered much from the ordinary miasmatic diseases. The first settlements were made near the river, and in the groves. Since the completion of the Illinois and Michigan canal, which was in 1847, the health of this region has been annually improving, from the fact, in part, of the drainage consequent upon such an improvement. An instance may be cited where such a result obtains, in the city of Joliet, where the canal is made by walling the banks of the river, with sufficient fall within the city limits to require two locks.

To give an account of the diseases that have prevailed within our knowledge in this vicinity during the last year, will require but little time. The year 1857 was the most healthy of any since the first settlement of the country.

In January and February, there were some cases of a continued type of fever which had prevailed during the autumn previous, and of which mention is made in the report in practical medicine, for the last year. There were frequent cases that were protracted for some weeks, and one in particular occurred in the person of a young lady who was a subject of angina pectoris. Having come to the brink of the grave in spite of starvation, and the potent effect of the most active

Hahnemannian treatment, she was happily restored by the use of stimulants, tonics and nutritious diet.

During the months of March and April, there were frequent cases of pneumonia, both sthenic and asthenic, and characterized by many of the morbid appearances seen in the typhoid fevers of the previous autumn. In May, June and July, there was but little sickness of any description, except occasional cases of our ordinary vernal intermittents or remittents.

In August and September, there were some cases of dysentery. A small proportion assumed a low typhoid grade, and proved fatal. The cases that came under my notice, were ushered in with a chill, which was soon followed by reaction, and voiding bloody slimy stools, with severe tenesmus. The duration was from ten to twenty-one days, according to the severity, and the length of time which had elapsed before calling medical aid. Many cases were similar to ordinary attacks of intermittent, with the dysenteric symptoms superadded. If the patient could be seen soon after the first chill, a few powders, containing each from three to five grains *sul. quinine*, with about the same amount of *hyd. c. creta* or powdered blue mass, and opium or Dover's powder in a dose sufficient to allay pain, would frequently stop the disease at once. But if the patient had complained for a day or two, or had taken a cathartic, the disease was very sure to continue for some days. When the disease was not cut short at once, the careful use of alterative doses of *hyd. c. creta* or blue mass, combined with an opiate, was followed with good effects.

The tenesmus was best relieved by the administration of enemata of from one to two ounces cold water, to which forty to sixty drops *tr. opii* had been added, with ten to twenty grains tannin, in about fifteen minutes after each stool.

It is usual to direct the use of injections *immediately after* the stools have passed, but there is so great irritability of the mucous membrane of the rectum that the enema will pass immediately away, without causing any relief.

But if sufficient time is allowed for the local irritation to subside, and the patient to get a little rest, much better effects will be realized.

Pain and tenesmus are the most important items in the train of symptoms in dysentery, and if they can be controlled, a great point is gained. Any one who has suffered personally with this distressing disease, can appreciate the extreme exhaustion attending the attempts to evacuate the bowels, where there is nothing to pass off, and the desire proceeds only from the condition of the mucous membrane. It seems reasonable that the anodyne course is imperatively called for, and should be followed up closely, while other remedies more directly constitutional in their effects are employed to correct the condition of the system. The avoiding of cathartic remedies in dysentery, we consider very important. It may be admissible on the first day after the attack, but generally the alimentary canal is sufficiently evacuated, without harassing the patient with medicines which serve to increase the irritability. In this, as in many other diseases, rest is very requisite.

In the books, laxatives and cathartics are generally advised. We find, too, that many advise the alternation of laxatives with opiates. They give opium, for instance, until the patient is comparatively free from pain, and the discharges have ceased; and for fear that constipation should result, a dose must be given to move the bowels, when all the distressing symptoms will return. We repeat it, then, that the use of cathartics, as they are employed by many, is cruel, as well as unscientific.

Allow us to mention, by way of illustration, some cases that occurred in one family, in which dysentery prevailed. First, a lady about 50 years of age, was attacked with the usual symptoms of dysentery, slight at first, and so much so, as to delay for two or three days in applying for medical advice.

The disease became seated, and assuming a low asthenic type, continued about twenty-one days. The principal treatment was opium or morphine, given in doses and at intervals sufficient to quiet pain and produce sleep. Turpentine emulsion was given with tr. valerian in equal parts, three times a day. Enemata of water, in which 3ss. tr. opii , and grs. x. tannic acid were added, given as occasion required. No laxatives were given at all, and absolute rest enjoined. The case resulted favorably, and the patient was not very much debilitated. Animal broth,

well salted, constituted the principal item of diet and drink. Another member of the family, fifteen months old, was sick about twelve days, and was treated with opium and quinine given regularly and without intermission during the whole time, without a particle of anything to act upon the bowels, except, occasionally, a small quantity of hyd. c. creta at first, to act upon the biliary organs.

While the individuals above mentioned were sick, both parents of the little girl began to complain of chilliness, with uneasiness in the bowels, and slight dysenteric discharges.

Instead of administering a cathartic to remove any vitiated secretions which might be supposed to exist, a prescription like the following was given:

R. Sul. quinine, ℞j.
Blue mass in powder, grs. xv.
Pulv. opii, " v.

Make five powders, and take one every three hours.

After taking the above powders, all the symptoms subsided. In seven days, however, the symptoms returned, but were met in the same manner, with a like result. There were numerous cases like these, and all were as easily cured by similar means, if taken soon enough.

But if, instead of this abortive treatment, a mercurial cathartic had been given, followed by castor oil or sul. magnesia, the chances for making a long bill would have been good.

Dr. Edmund Andrews, of Chicago, writes:

"In dysentery, I recommend an injection, as follows—

R Water, Oj.
Alum, grs. xxx.
Tannin, " xv.

Fiat. Solution to be used as, and adjuvant to, the ordinary treatment. One or two large injections of this kind generally puts an end to the bloody discharge *at once*; and the constringing effect on the vessels very materially abates the inflammation. It should be repeated every time there is any reappearance of blood in the stools. The solution should be made weaker in cases of children. In the most desperate cases the practitioner may control the effusion of blood with great certainty; though

if the case is complicated with typhoid fever, the mere relief of the inflammation of the colon, accomplished by the injection, does not always suffice to save life. In such cases, the symptoms of typhoid fever still remain after the dysenteric symptoms have disappeared. The principle of this treatment is not presented here as at all new, but as showing that many physicians are too negligent of the fact, that the inner surface of the colon is as perfectly accessible to topical applications as the external skin, and that a more free use of astringent injections, is requisite than is practised by many."

Before leaving this subject, we will add that the lady referred to as laboring under dysentery, had recently come from Connecticut, whereas the rest of the family had been in the State more than a year. There was a peculiar condition of the nervous system, which was not noticed in the others.

It was subsequently ascertained that a severe and fatal form of dysentery appeared in her former place of residence about the time she was sick. She had been in this State but four or five weeks at the time of the attack, and it is probable her symptoms were modified by the predisposition acquired before coming West. Such instances are common, and it is well to inquire when we meet with disease in those recently arrived, as to the general topography of the region. An individual coming from a mountainous locality, might require even venesection and other depletive measures, which would be inadmissible in an old resident.

Under improvements effected in the management of individual diseases, we will begin with glycerine.

Dr. Andrews, of Chicago, recommends glycerine as a solvent for vaccine virus, and as a preservative of the same.

Prof. N. S. Davis, in the *Journal* for February, 1857, gives the following formula, to be used in cases of tubercular disease in its early stage, before the cough is accompanied by much expectoration:

R Glycerine, ʒij.
Iod. potass, ʒj.
Sul. morph, grs. ij.

M. Give teaspoonful before each meal, and at bed time.

"If the disease is farther advanced," he says, "and expectoration more copious, we prefer the following :

R	Glycerine,	3ij.
	Syr. iod. ferri,	3ss.
	Sul. morphine,	grs. ij.

M. Teaspoonful every four or six hours."

Prof. D. commenced the use of glycerine in the treatment of phthisis three years since, in the manner above expressed, with satisfactory results.

This interesting substance was, until comparatively a short time since, used only as an external application. Being a solvent for numerous articles, it is very convenient, and its use is earnestly advised in all cases where there is a failure in any of the vital functions, resulting in debility and wasting of the system. We are using at this time, in a severe case of stomatitis materna, a combination of iod. potassæ and iod. ferri in glycerine, with good effects.

Prof. H. A. Johnson, of Chicago, recommends glycerine applied externally to the cutaneous surface in scarlatina, instead of oleaginous substances. He says that being a solvent for the secretions from the skin, it is greatly superior to oil, which tends to obstruct the natural action of the part. When the skin is dry, a moist and soft feeling is apparent in a few hours. It also relieves the intolerable itching attending the eruption. He also recommends its use in the affection better known by western people than in nosological works, viz, the Illinois scabies or "prairie itch." We have used it in the different hepatic affections with great benefit. For excoriated nipples, nothing is more satisfactory in its effects, than tannic acid dissolved in glycerine, applied immediately after the infant has nursed, and allowed to remain until the next time of taking the breast, when the part should be carefully washed. It is also recommended in the preparation of the different ointments, and but for the comparative expense would undoubtedly soon be substituted for the oily substances.

CHLORATE POTASH.

Dr. E. C. Ellet, of Bunker Hill, Ill., in the *N. W. Med. and Surg. Journal*, for March, 1857, recommends chl. potash in mercurial salivation, as a specific. In the adynamic type of fever, attended with foetid breath, and dysphagia, he uses it with much benefit; also in sore mouth from various causes, which as results of any disease, debilitate the system. He details the case of his own child, five years of age, who was successfully treated by it while laboring under a low form of infantile remittent. This article was formerly used in cases supposed to result from want of oxygen in the system, but is not very generally used at the present time.

Prof. Davis, in Proceedings of Cook Co. Medical Society, published in the *Journal* for May, 1857, reports three cases of cardiac disease.

The first case was a patient laboring under acute rheumatism. Together with the usual local symptoms noticed in such cases, there was constant pain in the dorsal spine of a very severe character, with occasional paroxysms of severe pains in the lower extremities. The slightest motion, or even a moderate jar of the bedstead, would cause him to cry out with pain. The foregoing symptoms, with quick impulse to the heart's action, and a plain pericardial friction sound a little below, and between the nipple and sternum, were considered indicative not only of severe articular rheumatism, but an affection of the central portion of the spinal system of nerves, and active pericarditis.

After giving reasons for diagnosis, the Prof. considers the indications for treatment to be threefold, viz: 1st, To mitigate the sufferings of the patient by anodynes; 2nd, To arrest the inflammatory actions, and, 3rd, To prevent, or at least to limit very much, the resulting effusions.

To accomplish these purposes, the patient was directed to take the following:

Sat'd tr. veratrum viride,	3j.
Vin. colchici,	℥ss.
Tr. opii et camph.,	℥iiss.

Mix, and take one teaspoonful every four hours. Also,

thickened. The patient, while living under all these morbid changes, was much relieved by taking every four hours the following:

Chloride sodium,	grs. xv.
Sul. quinine,	gr. j.
Morphine,	gr. $\frac{1}{4}$.

We find, in the *Journal* for May, 1857, the Proceedings of the DeWitt County Medical Society.

The subject of typhoid fever was under discussion, and Dr. Noble gave the following case which came under his care:

"The patient was a man about fifty, of good constitution, did not get very sick at any one time for the first two weeks. The pulse, *during the whole period of the disease*, remaining below the healthy standard. At no time did it exceed sixty beats in a minute, most of the time only fifty. Dr. N. had known the patient for several years,—his pulse in health was seventy-five to eighty. The patient felt rather indisposed than sick—not sick enough to keep the bed. This state of things continued two weeks, when profuse hemorrhage from the bowels commenced, and he sunk rapidly. The Dr. treated him successfully with dilut. nit. acid."

We refer to the above case, because we have often met with cases of typhoid fever, not only of the mild grade, but also the more grave, when the pulse was morbidly slow.

When the pulse is as low as sixty or fifty in a minute, there is cause for apprehension, even in a case so mild, as to call for only the least amount of medication; for there must of necessity be some obscure cause operating to occasion a slow pulse. A similar remark may be made in regard to an intermitting pulse, or where the heart beats more than 140 or 150 in a minute.

Dr. Edmiston says he combines nitric acid with strychnia, as follows:

R Strychnia,	gr. j.
Nitric acid,	3j.
Tr. opii,	3ij.
Aqua,	3ij.

Dose not given, but a teaspoonful, we should judge, would be a

dose. He says that with this mixture and turpentine emulsion, he had saved several patients who would have inevitably died.

In the December number of the *Chicago Journal* we find an article by Dr. F. W. White, upon the use of chloroform in paroxysmal typhoid fever. The patient was a lady twenty-five years of age, recently from New England. The symptoms as described by Dr. White, were those ordinarily met with in remittent fevers, and he accordingly prescribed the following, viz.:

R Hyd. sub. mur. grs. xij.
Pulv. Doveri, ʒj.
Sul. quinine, ʒj.

Mix. F. Pul. vj. One every four hours, alternated with spts. nit. dulc. The unfavorable symptoms continuing, on the second day fifteen drops chloroform were given with the spts. nitre, with some relief of the distressing symptoms. Being considered too irritating given in this form, the following emulsion was prescribed:

R Pulv. acacia, aa, } ʒiiss.
Sach. albi, " }
Spts. nit. dulc., " } ʒiiss.
Chloroform, " }
Aqua distill., ʒiiss.

Two teaspoonfuls every four hours, alternated with one of the following powders:

R Pulv. opii, aa, } grs. vj.
Sul. quinine, " }
Sach. albi, ʒss.

M. F. Pulv. vj.

On the fifth day, the symptoms were relieved somewhat; sixth day, still improved. This emulsion was continued about two days, when the unfavorable symptoms were relieved.

The reporter seems to credit the chloroform with cutting short the disease.

If the disease was a fixed typhoid fever, as we have seen that disease, it is doubtful whether any course of treatment would have cut it short; and if it was materially shortened by the chloroform or anything else, it must have been something else than the genuine typhoid fever.

We have frequently seen cases like the one described above, which were relieved by the use of different sedatives directed to the mucous system, but their action was considered as temporary in mitigation of symptoms that were only accidental, and not constituting the disease. But we forbear further remark, for fear of drifting upon the ocean of controversy in relation to the question, What is Typhoid Fever?

There is a series of articles in the different numbers of the *Journal*, of Dr. Edward Brown-Sequard's experimental and clinical researches applied to physiology and pathology, as applied to epilepsy. The details of his observations cannot be given in this report, but we would refer the members to the articles.

Any degree of success in throwing light upon this very interesting and, in most cases, incurable disease, should be hailed with joy by the medical profession. Epilepsy has always been considered in the light of an impregnable fortress, bidding defiance to any and all attempts at reduction.

Most of us have witnessed its effects upon the person of some esteemed friend, in whom, at first, the slightest variation from the normal standard was noticed, but still sufficient to excite alarm. That person would manifest slowly, but not the less sure, all the successive changes from bad to worse, until the intellect once vigorous, and the body robust, would waste away, showing, at one view, a mental wreck and a physical pile of ruins.

In the *Journal* for October, 1857, is an article by Dr. C. Angell, of Pittsburgh, Ind., in which he gives the result of two cases of tying one of the common carotid arteries for epilepsy.

The first in a young man of 20, who had had fits for three or four years, but increasing gradually in frequency and severity. The next day after the operation, the left side was paralyzed, with no relief of the other symptoms. He lived seven days, but had no fits.

The other case was in a man 40 years of age. The operation was performed on the 8th of July, and up to Sept. 18th following, had had only four fits, and could attend to his business—was better than he had been for three years.

MILK-SICKNESS.

This form of disease is very interesting to the profession, especially in the localities where it prevails, and not the less so from the fact that there is a great deal of obscurity in reference to the primary cause. The text books have but little to say respecting it, for the reason that its prevalence is confined to certain localities instead of being general. There is wide difference of opinion among those who have observed its phenomena, as to what produces it. In the *Journal* for April, 1857, there are some interesting observations by G. W. Wilkinson, in an inaugural address.

He says: "The disease is excited by the eating of beef, milk, or butter from cattle that had eaten a mineral substance contained in the earth. His reasons for this supposition are, that it is most common, even where it is known to prevail, in dry seasons, when this substance is not washed off, or so much diluted as to be powerless. The water of some springs has been known to produce it, and if these springs are enclosed so that cattle have no access to them, the disease will disappear in the neighborhood."

In the article referred to, is an instance mentioned where the earth, in a certain place, was covered with a white mould, in spots not very near each other, and no larger than a dime. It appeared to have exuded from the earth; and pressed between the fingers, had more the substantial properties of a mineral than a mould.

The pathology and treatment of this disease is stated in an inaugural thesis in the *Journal* for January, 1857, and nothing said as to its supposed cause, except that it may be more like a vegetable alkaloid than of a mineral nature. Judging from the symptoms described by Mr. Phillips, the disease is one causing great depression of the vital energies, and undoubtedly produced by an extremely subtile poison. From the fact that there is torpidity of the bowels, with extreme nausea, there is an impression produced upon the nervous system which interferes decidedly with the healthy functions.

In the *Journal*, of June, 1857, is an article by Dr. John

Pickard, upon the pathology of milk-sickness in Parke Co., Indiana. Dr. P. takes the same view of that of Dr. Wilkinson, viz: that it is neither vegetable, animal, nor malarial. He cites an instance, as follows:

"A farmer, living about a mile from where the disease is known to exist, allowed his cattle to run out, but they never reached the infested district until the dew evaporated from the vegetation; the result was, his cattle nor his family were never attacked by the disease; were it a vegetable, the absence of the dew would not destroy its poisonous qualities."

Another family having suffered from its ravages, plowed up a pasture field, digged around the stumps, thoroughly turning all the soil, and sowed the field in grass, upon which they have kept their stock for twenty years, and at no time has milk-sickness made its appearance; while, on other portions of the farm uncultivated, it is as fatal as ever.

"From the observations and experiments," he says, "which have been made, where the citizens have suffered severely from the loss of property, and the lives of those still dearer to them, we deduce the following conclusions:

"1st. Milk-sickness is caused by a poison, and this poison is generated near the surface of the earth, from some peculiarity in the soil, or the soil and atmosphere combined.

"2nd. That the poison is a mineral or heavy gas, which appears to be produced in the night, and destroyed by the rays of the sun.

"3rd. A thorough cultivation of the soil will destroy it.

"4th. That it may be communicated from one animal to another by the flesh or milk. And,

"5th. That oleaginous substances act as a preventive, and will often cure animals affected with the disease.

"There is no difficulty in the diagnosis; the patient invariably complaining of great weakness and inability to perform labor. A little exercise produces trembling and fainting sensations. As the disease advances, vomiting and obstinate costiveness are invariable accompaniments, and during the whole time a peculiar odor pervades the room, unlike anything we ever met with.

"The treatment of milk-sickness is simple. We have previously stated that oleaginous substances are preventives, and we have found no remedies so efficient as castor oil, by the stomach if possible, if not, by enemata. Apply sinapisms to the stomach, give cooling mucilaginous drinks, overcome the costiveness as soon as the nature of the case will admit, and you have conquered the main obstacle to successful cure."

In the *Journal* of November, 1857, John C. Beck, of Cadiz, and J. W. Crook, of Rockport, Indiana, give it as their opinion that this disease is of vegetable origin.

Dr. Crook says that Dr. Drake was of the opinion that the disease was caused by the cattle eating the rhus toxicodendron, and that he is "strongly" of this opinion. Both pursue a stimulating course of treatment, and if these observations are correct, there is no doubt the system is affected in a manner similar to that in case of specific poisoning, whether animal, mineral, or vegetable.

Dr. J. P. Bruler, of Rockport, Indiana, in the May number of the *Chicago Medical Journal*, presents the view that it is a poison, which, being received into the system of an animal, may be communicated to another. After saying that it cannot be a poison of an ordinary character, he remarks: "But there is a large class of animal poisons, commonly called infections, which do possess the power of self-propagation, whenever they are placed in a proper condition for such development. One rabid dog could infect a score or more, and they, in turn, produce the disease in equal ratio. The same is true of small pox, measles, psora," etc.

Dr. B. considers it infusorial, and gives the following instance: "A gentleman of this town had a cow which ran at large, caught the disease, and gave it to her calf. The calf died, and his dogs ate its flesh; they, in a few days, sickened, with all the ordinary symptoms of tipes, and both died. A pet crow was seen eating the dogs; in a few days it refused to eat, could scarcely be made to hop or fly, as was its custom when in health, and in a day or two died."

Here we have a case where the poison affected four animals, or classes of animals, and might have been further propagated;

had the grow been eaten. The Dr. thinks the above facts refute the idea of its production by *rhus toxicodendron*, arsenic, or any known vegetable or mineral poison. Concerning the pathology of this disease, Dr. Bruler confesses himself ignorant. "The late Dr. S. P. Sina, informed me that he had made *post mortem* examinations twice." In both cases were found the usual evidences of an active inflammation of the stomach, and particularly of the pyloric region. In one case the pyloric orifice, and most of the duodenum, were so thickened and contracted that a probe could scarcely be passed into the stomach.

We have dwelt more at length upon this subject, from the fact, that much obscurity and discrepancy of opinion exist among the profession as to its cause, and from all that can be gleaned, it still remains a dark subject.

Occurring as it does only in certain localities, it is incumbent upon those members of the profession who are residents of the places where it prevails, to investigate it, and communicate the results of their observations to the world. We have no decided personal opinion to express, having never seen a case of milk-sickness, but in what can be collected from the experience of others, there is one very important and prominent consideration connected with the subject. Whatever obscurity may attend its primary cause, it is a fixed fact in the minds of many, that it is communicable from one animal to another, by partaking of the flesh or milk.

We find no such phenomena attending the effects of any class of poisons, either vegetable or mineral. As has been previously remarked, there is a severe affection of the great nervous centres. Extreme debility, tremors, nausea and vomiting, and a suspension more or less complete of the peristaltic action, are found.

We have sometimes seen symptoms in a severe attack of vernal remittent, that were said by those who had resided in such districts to resemble those of milk-sickness. It may be modified, and aggravated by the influence of malaria. It is found most prevalent in a belt of territory comprising a portion of Ohio, Indiana and Illinois.

Dr. Bowen, of Wilmington, in Will Co., who has practised more than twenty years in this and the adjoining counties,

(To be continued.)

BOOK AND PAMPHLET NOTICES.

LECTURES ON THE PRINCIPLES AND PRACTICE OF PHYSIC, delivered at King's College, London. By THOMAS WATSON, M.D., Fellow of the Royal College of Physicians, late Physician to the Middlesex Hospital, and formerly Fellow of St. John's College, Cambridge. A new edition, from the last revised and enlarged English edition; with additions by FRANCIS CONDIE, M.D., Fellow of the College of Physicians of Philadelphia, Member of the American Philosophical Society, etc., etc.; with one hundred and eighty-five illustrations on Wood. Philadelphia: Blanchard & Lea. 1858.

"This edition of the lectures of Dr. Watson have undergone a thorough revision; and whatever of value recent research has added to our stock of knowledge in the various departments of medical science, has been carefully incorporated in them. The lectures on fever, especially, have been greatly enlarged and improved; the positive distinctions that have been insisted upon by eminent pathologists between typhus and typhoid fevers, are recognized as being founded in truth. The extent of these additions is shown by the fact that notwithstanding a very considerable enlargement in the size of the page, the work has been increased by about two hundred pages."

The above extract from the editorial preface, sets forth truthfully the main difference between this and former editions. We regard the plates for illustrating various intricate subjects treated of, as greatly increasing its value to the student.

We cannot speak too highly of this truly classical work on the practice of medicine. Take it all in all, it is the very best of books of its kind; equaled by none in beauty and elegance of diction, and not surpassed in the completeness and comprehensiveness of its contents. It will be an indispensable guide to the student in the acquirement of his profession, and no less worthy of frequent consultation and reference by the most enlightened practitioner. Dr. Condie has added to his already enviable reputation for industry and large acquirements, by the share he has taken in preparing for, and conducting through, the press, so acceptable a professional favor as this present edition of Watson's lectures.

ON THE TREATMENT OF ANEURISM BY COMPRESSION, AND BY THE INJECTION WITH THE PERCHLORIDE OF IRON. By JOHN REDDY, M.D., Physician to the Montreal General Hospital, etc., etc.

(From the *Medical Chronicle* for September, 1858.)

The article, from which the above is the heading, is one of much interest, but does not at all correspond to its title, the principal part of it relating not to aneurism but to erectile tumor. There is, however, one case of popliteal aneurism successfully treated by compression, the report of which presents nothing unusual in similar cases.

Dr. Reddy gives a *resume* of Broca's tables, by which it appears that of 127 cases treated by compression, the deaths were not more than 5 per cent, and contrasts these with the results, as shown by Drs. Crisp and Norris, of the operations by ligature, in which it appears that the failures are about 33 per cent, and the deaths 25 per cent.

These facts speak for themselves, yet the number of cases in which compression cannot be borne, or in which it fails, is doubtless much greater than might be supposed from the tabular statements referred to.

Four cases of erectile tumor, treated by the method of Pelivay, are reported by Dr. Reddy.

The first of these was an aneurism by anastomosis, very similar in form and situation to the case first observed by John Bell, who bestowed this name upon it. Into this a solution of the perchloride of iron was injected at two different times, fifteen drops being the quantity used at the same injection.

The second case was a common erectile tumor of the size of a half crown, situated on the frontal protuberance. Into this, twelve drops were injected.

The third case was a tumor like the former in character, situated on the back. Seven drops of the solution were thrown into it.

Case four was a dark-colored naevus on the right arm, of the size of a small raspberry. Three drops of the solution were used in this case.

In all these cases the result was the same, viz: rapid solidification of the tumor, and subsequently the formation of a slough

which separated in form of eschar. In the first and second cases, a portion of the tumors which escaped the action of the caustic was destroyed afterwards by the hot needles.

We chronicle these cases as showing the efforts still being made to realize the dreams of Pravaz, which, however, are becoming less frequent every year. The result was satisfactory. Dr. Reddy may well congratulate himself on having escaped the accidents which others have met with, and we cheerfully award him the credit of having proceeded with caution.

But a question necessarily arises in regard to this proceeding: is it safer or better than extirpation or the ligature? We think not, and the reasons are so obvious as not to require enumeration. John Bell extirpated in his case, and in this respect no improvement has been made in practice up to the present time.

But the result obtained by Dr. Reddy is not that sought by Pelivay, who expected by injections to coagulate the blood of aneurisms, and cause its absorption without suppuration or gangrene.

As applied in these cases, the practice may be called simply the sub-cutaneous application of caustic to erectile tumors. Dr. Brainard of this city suggested the possibility of treating tumors in this way, in a paper presented to the Society of Surgery of Paris in 1853. It did not, however, meet with a very favorable consideration in that body; and the cases reported by Dr. Reddy are the first and only instances of the adoption of a similar practice which have come within our knowledge. D. B.

We have received from the publishers:

THE PHYSICIAN'S VISITING LIST, DIARY AND BOOK OF ENGAGEMENTS, FOR THE YEAR 1859. Philadelphia: Lindsay & Blackiston.

This little book is becoming, if it is not already, an "institution" among us. We notice, in addition to its other contents, that it contains Marshall Hall's ready method of resuscitation from drowning. This alone is worth the amount of the price for which it is sold, to persons who are not already perfectly familiar with it.

We have also received from the author:

A REPORT ON THE CHEMICAL ANALYSIS OF THE WHITE SULPHUR WATER OF THE ARTESIAN WELLS OF LAFAYETTE, IND.; with Remarks upon the Nature of Artesian wells. By CHARLES M. WITHERELL, Ph. D., M.D. Published by the Mayor and Council of Lafayette, at the request of a Committee of Citizens.

CASE OF CHRONIC HYDROCEPHALUS, TREATED BY INJECTIONS OF IODINE.

Dr. Tournesko, Surgeon of the Civil Hospital of Koltza, Bucharest, has recently communicated to the *Gazette des Hopitaux* a case of hydrocephalus, treated by injection of the tincture of iodine.

The subject was a child, two months old, and the head measured about twenty inches in circumference. At the first puncture, eleven ounces of serum were drawn. This was replaced by effusion in twenty-four hours. Another puncture was made the second day, and twenty-four ounces of fluid drawn off. This time the tincture of iodine was injected (twelve *grammes* of tr. of iodine in twenty-four *grammes* distilled water), of which one-eighth part was allowed to flow out. The quantity inserted contained, according to our calculation, about sixteen grains of iodine and three teaspoonfuls of alcohol.

At the moment of the injection, the child turned pale and cried several times. The following day he had fever, for which calomel was prescribed.

Twenty days after the operation, the head was of the natural size, and the child was in good health. Thirty-five days after the operation, the child continued in the same satisfactory state.

The following are the details of the operation:

1. A large-sized trochar was used.
2. It was carried to the depth of about two inches.
3. The puncture was made in the coronal suture, at the side (as being the point nearest the ventricles), and at an angle of forty-five degrees with the horizon.

This is the second case of hydrocephalus treated by injections of iodine. The operation was first recommended and performed by Dr. Brainard. This case, however, did not succeed, except in palliating the disease for a time. The case of Dr. Tournesko seems to have resulted more favorably, and gave more hope, at least, of a cure, although thirty-five days is too short a time to

judge of the result. The only point in which the treatment differed from Dr. Brainard's was in using an alcoholic solution of iodine, in place of a watery solution with iodide of potassa.

There is one respect in which both these concern, and that is in showing the comparative innocence of iodine injections into the ventricles of the brain. This is a point concerning which a very great and important misapprehension exists. The cerebral substance, when cut or directly irritated, gives rise to neither pain nor spasm. This was first demonstrated by Fletrens in his great work on the nervous system, and has been confirmed by all experimenters since. The most violent poisons, such as the woorara and prussic acid, applied directly to the substance of the cerebrum, produce no effect until they are absorbed and carried into the circulation. In Dr. Brainard's case, the only severe symptoms produced (and twelve grains of iodine and thirty-six grains of iodide of potassium were injected at once and allowed to remain), occurred when the iodine, having been absorbed, was effused into the stomach, producing irritation and vomiting, as if it had been swallowed.

Considering these facts, and that a knowledge of physiology is now more common, we may hope that practitioners will not fail to give a fair trial to iodine injections in this most fatal malady, for there is no reason to believe that the so-called membrane which lines the lateral ventricles is in any respect more sensitive than the brain itself.

EDITORIAL.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF MICHIGAN AND PRELIMINARY EDUCATION.

All who have been in the habit of looking over the Annual Announcements of the Medical College at Ann Arbor, Michigan, and its former organ, the *Peninsular Journal*, are aware that great credit has been claimed for that institution on account of a pretended compliance with the recommendations

of the American Medical Association in relation to the length of lecture term and a standard of *preliminary education*. And the readers of this journal will remember, that two or three years since we were plunged into a protracted controversy with the senior editor of the *Peninsular Journal* for simply denominating some of these claims mere *bombastic pretences*. As one of the chief items for which they claimed credit for being in advance of all other schools, both in that controversy and elsewhere, was the adoption of a high standard of *preliminary education*, we take the liberty of placing before our readers the following report of the proceedings of a recent meeting of the Board of Regents of the State of Michigan, taken from a Detroit paper:

2½ O'CLOCK P.M.
Mr. McIntyre presented a report on the question of the removal of the Medical Department to Detroit. The report stated that the committee had investigated the matter, and found legal objection in the enabling act of the Legislature; that the University was to be located in or near the village of Ann Arbor; that it was in accordance with the real or implied contract with the grantors of College Square to the institution, on condition that the University, not a branch, but the whole University, should be there located; that the great want of medical students was not so much a course of clinical instruction, as a more thorough preparatory course; that the people of Michigan did not wish the removal; that nobody did wish it but one or two Detroit professors and the friends they influenced; that the Medical Department of the Michigan University, without extensive clinical instruction, has more students than Yale and Harvard Medical Schools combined, and more than twice as many as that at Richmond, Va.; that professors should be required to reside at Ann Arbor, at least during term time; that irregularity of lectures was chargeable to the non-residence of professors, especially Professor Gunn; that Professors Gunn and Pitcher had conducted their discussion in their medical journals on the Medical Department removal question, with ungentlemanly personalities; that Professor Gunn had used language injurious to the reputation of the

institution; that the Medical Department could only be removed at great pecuniary sacrifice; and, finally, that personal interest and selfish motives of one or two professors are the sole cause of the present agitation of the question.

The committee reported the following resolutions:

1. That the Medical Department of the Michigan University ought not to be removed to Detroit or elsewhere, and that we trust that agitation of the subject by professors and others connected with the institution will henceforth cease, as we consider such agitation not only useless but detrimental to the best interests of the institution.

2. That each candidate for admission to the Medical Department shall furnish satisfactory evidence of good moral character to the President, and, if not a graduate of this or some other college, he shall bear an examination in natural philosophy, the elements of mathematical science, including geometry and algebra, and such an acquaintance with Latin as shall entitle him to admission to the freshman class of the class course of the University, to be certified by the proper professors of that course. This resolution shall take effect on first day of July next.

3. That from and after the expiration of the approaching medical term, all the Medical Professors shall be required to reside at or near Ann Arbor during the medical lecture term.

The report was accepted.

Mr. Bishop presented a minority report:

1. There was nothing in the acts of the Legislature forbidding the location of branches of the University out of Ann Arbor.

2. That a large city is best for a Medical College, and Detroit therefore is the best place for it in the State.

3. It is not the interest of the University to be kept all in one place.

4. That the pecuniary state of the University does not at present admit of removal, therefore concludes that the whole subject should be indefinitely postponed.

This report was also accepted.

On motion of Mr. Parsons, the committee was discharged.

Mr. Bishop moved the adoption of the first resolution of the majority report, and said that he disapproved of allusion to the

Professor of Surgery; that the discussions of Professors Pitcher and Gunn have been dignified by the notice of the Board; that the clinical course at Detroit did not amount to a straw; that the people of Detroit did not care a single straw about having the Medical Department there; and that the Detroit bar did not want the Law Department there.

Mr. Brown moved that the resolution be amended by striking out all after first clause.

Mr. Baxter said that the committee had not, as hinted, stepped out of their way to attack non-resident professors.

Mr. McIntyre could not sit still and be charged by gentlemen from Detroit with making personal attacks upon any professor. He said that Professor Gunn had not kept within bounds of proper discussion, but had assailed the College and Board of Regents, and deserved rebuke at the hands of the Board.

Mr. Bishop said the committee had no business to attack Professor Gunn in a report on the removal of the Medical Department.

Mr. Ferry said we could not stop public discussion by professors or anybody else.

Mr. Brown would not object to the character of the report, but thought it should be confined to subject matter.

Mr. Baxter thought it was high time that the Regents should express their opinion upon and rebuke such kind of discussion by professors of the institution.

Mr. Parsons considered the discussion on the amendment fashionable, and would accordingly make a few remarks. He thought the amendment was right. He did not like the course of professors. He thought they shouldn't be employed if they acted thus; yet he concluded that the committee had no jurisdiction in the matter.

Mr. Ferry thought such discussions beneath notice.

Mr. Baxter accepted Mr. Brown's amendment.

The resolution was adopted.

Mr. Baxter moved that the second resolution be adopted.

Mr. Bishop moved that the opinions of Drs. Sager and Palmer be asked on the subject.—Adopted.

Dr. Sager said the question had been discussed by the Faculty. It had been the former practice to have requirements before admission; that now they were required at graduation instead. If applied to candidates for admission, it would very much diminish the classes, and, in fact, the whole department.

Mr. McIntyre wished to direct the Doctor's attention to the fact that undergraduates would go out and practice.

Dr. Sager said it could not be helped. He thought it would be more important that students in medicine should have a knowledge of botany and zoology than Latin and mathematics.

Dr. Palmer did not think that Latin was absolutely necessary for medical men; that the popular mind was turning against classics. He thought the resolution would reduce the medical class to ten or twelve. The requirements had better be made in mathematics and science than in Latin.

Dr. Tappan inquired what he thought would be the effect of requiring medical students to be graduates of a literary college.

Dr. Palmer said it would reduce the Medical Department to nothing.

The resolution was tabled, on motion of Mr. McIntyre.

On motion of Mr Bishop, the third resolution was, after some discussion, tabled.

Dr. Palmer here wished to know if he, as a journalist, was required to refrain from subjects pertaining to the improvement of the profession?

Mr. McIntyre said no, nothing of the sort was thought of.

The Board adjourned till 8 o'clock p.m.

By reference to the second resolution appended to the report of Regent McIntyre, it will be seen that so far from having had any standard of preliminary education for admission into the medical department of the university, the committee have only just now proposed one for adoption. And what became of the proposition? The report says that Professors Palmer and Sager, on invitation, appeared before the Board, and so decidedly opposed its adoption, that it was laid on the table, where it still sleeps. Yes, the same senior editor of the *Peninsular Journal*, who assailed us so furiously for merely

suggesting that their annual boast about being "so far in advance" of all other medical institutions in their standard of preliminary requirements was mere bombast, actually takes the lead in opposing a serious proposition to establish a positive and valuable requisition on the subject. It is an old saying that MURDER WILL OUT; and so will TRUTH, at least, occasionally. The Professors distinctly admit that no standard of *preliminary education* is required for admission into the medical department of the University of Michigan.

How long before the profession will be gravely told that this institution has complied with the recommendations of the American Medical Association, and that it is "FAR in advance of all other institutions" in this country?

ENQUIRY ANSWERED.

Dr. Davis, of the *Chicago Medical Journal*, asks, "who are the senior editors of the *Nashville* and *Peninsular Journals*, and who constituted them defenders of the American Medical Association?"

We can only answer for ourself. Our name is W. K. Bowling. We are relieved of the necessity of asking who is the senior editor of the *Chicago Medical Journal*, for that gentleman has published to the world that he is a member of the "Methodist church, north," and the papers of Chicago have, if we remember rightly, published that he is a defeated candidate for the mayoralty of the City of Chicago."

Dr. Davis claims to be the father of the American Medical Association, and we claim the right to defend the offspring even of such a father as he.

We hope Dr. Davis will regard his very civil question as most civilly and frankly answered.—*Nashville Journal*.

Not quite, Dr. Bowling. An answer that contains *three errors to one truth*, can scarcely be considered either "civil" or "frank." That the name of the senior editor of the *Nashville Journal* is W. K. Bowling no one will doubt who observes the amount of GAS which escapes every month through the editorial columns of that periodical. That I have ever "*published* to the world that I am a member of the 'Methodist church, NORTH,'" is wholly untrue; for my creed admits of no

sectionalism, either in religion, politics or science. That "the papers of Chicago have published that I am a defeated candidate for the mayoralty of the city of Chicago," is equally untrue; for I have never been a candidate for the office of *Mayor* in this or any other city. That "Dr. Davis *claims* to be the father of the American Medical Association," is the *third error*. I have never made any such claim, either at home or abroad; in print or out of print. If others have applied that honorable title to me, it is their business, not mine. Will Dr. Bowling copy, and try again?

OBITUARY.

Died, in this city, on the 6th November, Dr. GEORGE BARTLETT FOSTER, at the age of thirty-three years. Dr. FOSTER was a native of Roxbury, Mass., and was the grandson of Dr. George Bartlett, a distinguished practitioner of that city some years since, and still well remembered by many now living. The deceased was graduated at the University of Vermont, and received his medical degree from the Jefferson Medical College, Philadelphia, in the spring of 1854. With the exception of the time given to a course of lectures at Philadelphia, he pursued his medical studies in Boston, having had the advantage of a year's stay at the city hospital at Deer Island, as resident pupil. After his graduation at Philadelphia, he was for three months acting assistant-physician at the State hospital at Rainford Island, and in the fall of '54 visited Paris, to continue his studies under the distinguished medical teachers of that city. Soon after his return to this country in the fall of '55, he came to this city, to establish himself in the practice of his profession, to which he devoted himself with energy and uniform good success, till prevented by the illness which immediately preceded his death. His last illness was of a week's duration.

His disease was purpura hæmorrhagica, complicated with enlarged liver and jaundice. All the symptoms were of marked severity, and the prognosis was from the beginning unfavorable. The attack was ushered in by neuralgic pains and a sense of depression and malaise. The hæmorrhage from the mucous surfaces was very great, and the secretion of bile was not re-established. There was marked prostration throughout, and the delirium which was present at first soon passed into stupor.

Dr. FOSTER was a man of fine qualities of heart; an ardent and unwavering friend. Generous and impulsive, he was ever

ready to encourage and assist those who sought his advice and aid. Though sensitive to the opinions of others, he had much force and energy of character, and was not easily disheartened or deterred from carrying out his resolves or convictions.

In his profession he was earnest, diligent and for the short time that he was engaged in practice, remarkably successful. He had the advantage of a thorough medical education, an opportunity to observe the practice of many of the men most eminent in this country and France, for their medical attainments. Added to this, he had those mental endowments which, with experience and study, are sufficient to insure an honorable rank in his profession. His manners at the bedside of the sick, were more than ordinarily winning, and there are many who gratefully remember the encouragement and confidence which he inspired. He never refused his services, when in health, to those who called for them, and never shrank from doing, cheerfully, his full share of that gratuitous labor which the members of the medical profession are so familiar with and generally so willingly undertake.

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Belladonna	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Cinchona	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
(Callimya)	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Colombo	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Conii	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Cimicifuga	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Cubebe, U. S.	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Ergotæ	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Galla	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Gentiana	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Hyoscyami	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Lobelia	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Ophi.	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Pareira Brava	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Piperis Nig.,	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
U. S.	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Pruni Virg.	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Rhei, U. S.	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
" et Senna.	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Sanguinaria	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Serpentaria	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Scutellaria	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Serratilla	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
U. S.	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Senna, U. S.	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
" et Spigelia	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
U. S.	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
Stillingia	oz	ss	ss	ss	ss	ss	ss	ss	ss	ss
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Asclepin,	Asclepias Tuberosa,	1 50	Senecio,	Senecio Gracilis,	1 50
Baptisin,	Baptisia Tinctoria,	1 00	Stillingin,	Stillingia Siliatica,	1 25
Caulophyllin,	Caulophyllum Thalic.,	0 75	Strychnin,	Strychnos Nux Vomica,	2 00
Cerascin,	Cerasus Virginiana,	1 50	Trillin,	Trillium Pendulum,	1 00
Chelonin,	Chelone Glabra,	1 25	Veratrin,	Veratrum Viride,	1 50
Cornin,	Cornus Florida,	1 00	Viburin,	Viburnum Oxyococcus,	1 50
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Digitalin,	Digitalis Purpurea,	1 50	" " Chelone Glab.		0 50
Euonymin,	Euonymus Americanus,	1 50	" " Digitalis Purp.		0 50
Euphorbin,	Euphorbia Corolata,	1 50	" " Euonymus Amer.		0 50
Eupatoria,	Eupatorium Perfolia,	1 00	" " Eupatorium Purp.		0 75
Eupatorin,	Eupatorium Purpureum,	1 50	" " Gossypium Herb.		1 00
Gelsemin,	Gelseminum Semper.,	2 00	" " Rhus Glab.		0 50
Geranin,	Geranium Maculatum,	0 50	" " Scutellaria Later.		0 50
Helonin,	Helonias Dioica,	1 75	" " Senecio Gracilis,		0 50
Hydrastin,	Hydrastis Canadensis,	1 25	" " Strychnos Nux Vomica,		1 00
Hyoscinamin,	Hyoscinamus Niger,	2 50	Con. Comp. Stillingia Alternative,		1 00
Irisin,	Iris Versicolor,	1 00	Xanthoxylin Pills,		0 50
Jalapin,	Ipomoea Jalapa,	1 00		<i>per bot.</i>	
Juglandin,	Juglans Cinerea,	0 75	Con. Tinc. Gelseminum Semp. 8 oz. bot.		1 00
Leptandrin,	Leptandria Virginica,	0 75	" " Veratrum Viride, 4 oz. bot.		0 75
Lupulin,	Humulus Lupulus,	1 00	Wine Tinc. Lobelia Infl., 6 oz. bot.		0 50
Macrotin,	Macrotys Racemosa,	0 50		<i>Oils.</i>	<i>per oz.</i>
Menispermic,	Menispermum Canad.,	1 00	Oil Lobelia,		1 50
Myricin,	Myrica Cerifera,	0 50	" of Capsicum,		0 75
Phytolacin,	Phytolacca Decandra,	1 00	" " Erigeron,		0 50
Podophyllin,	Podophyllum Peltatum,	0 75	" " Populus,		0 50
Populin,	Populus Tremuloides,	0 50	" " Stillingia,		1 00
Prunin,	Prunus Virginiana,	0 75	" " Zanthoxylum,		0 75
Rhusin,	Rhus Glabrum,	1 00	Oleo-Resin of Lobelia,		0 75

Pocket Medicine Cases, filled with Concentrated Medicines.

No. 1.	20 vials,	25 00
" 2.	24 "	30 00
" 3.	28 "	35 00

An extra charge of ten cents per oz. will be made for medicines put up in half oz. vials.

All the articles manufactured at their Laboratory will bear the stamped label, "Prepared at the Laboratory of B. Keith & Co. New York." They will also be hermetically sealed and stamped "B. Keith & Co. Organic Chemists, N. Y."